

Claim:

1. A catalyst support consisting mainly of synthetic silica, with 0.5 - 10 parts by weight of one or more oxides or phosphates of the elements of group IIA, IIIB, IVB, VB, VIB, VIIB, VIII, IB, IIB, IIIA, IVA and the lanthanides characterised in that the support preparation method comprises mixing particulate synthetic silica with particulate oxides or phosphates of the elements of Groups IIA, IIIB, IVB, VB, VIB, VIIB, VIII, IB, IIB, IIIA, IVA and the lanthanides, or with precursors thereof, a forming step and calcination.
2. A catalyst support according to claim 1 consisting mainly of synthetic silica, with 0.5-10 parts by weight of titania and/or zirconium dioxide characterised in that the support preparation method comprises mixing particulate synthetic silica with particulate titania and/or zirconium dioxide or with precursors thereof, a forming step and calcination.
3. The catalyst support according to claim 1, wherein the content of synthetic silica in the calcined support is at least 80 %.
4. The catalyst support according to claim 1 or 2, wherein at least 50% of the titania and/or zirconium dioxide domains in the calcined support are smaller than 2 μm .
5. The catalyst support according to claim 1 or 2, wherein at least 50% of the titania and/or zirconium dioxide domains in the calcined support are smaller than 1 μm .
6. The catalyst support according to claim 1 or 2, wherein at least 50% of the titania and/or zirconium dioxide domains in the calcined support are smaller than 0.8 μm .

7. The catalyst support according to claim 1 or 2, wherein at least 90% of the titania and/or zirconium dioxide domains in the calcined support are smaller than 0.8 μm .
8. The catalyst support according to claim 1 wherein the synthetic silica comprises pyrogenically produced silica.
9. The catalyst support according to claim 1 wherein the synthetic silica consists entirely of pyrogenically produced silica.
10. The catalyst support according to claim 1 wherein the synthetic silica comprises silica gel.
11. The catalyst support according to claim 1 wherein the titania comprises pyrogenically produced titania.
12. The catalyst support according to claim 1 wherein the titania consists entirely of pyrogenically produced titania.
13. The catalyst support according to claim 1 wherein the titania comprises precipitated titania.
14. The catalyst support according to claim 1 wherein the titania consists entirely of precipitated titania.
15. The catalyst support according to claim 1 wherein the zirconium dioxide comprises pyrogenically produced zirconium dioxide.
16. The catalyst support according to claim 1 wherein the zirconium dioxide consists entirely of pyrogenically produced zirconium dioxide.
17. The catalyst support according to claim 1 wherein the zirconium dioxide comprises precipitated zirconium dioxide.

18. The catalyst support according to claim 1 wherein the zirconium dioxide consists entirely of precipitated zirconium dioxide.
19. A process for the preparation of a catalyst support
5 according to claim 1, which comprises mixing particulate synthetic silica with 0,5 to 10 parts by weight of particulate oxides or phosphates of the elements of Groups IIA, IIIB, IVB, VB, VIB, VIIB, VIII, IB, IIB, IIIA, IVA and the lanthanides, or with precursors
10 thereof, based on the total weight of the support, prior to the forming step, a forming step and calcining the formed material between 400 and 1050 °C.
20. A process for the preparation of a catalyst support according to claim 2, which comprises:
15 mixing particulate silica, with 0.5 to 10 parts by weight of particulate titania and/or zirconium dioxide or with precursors thereof, based on the total weight of the support, prior to the forming step;
a forming step and
20 calcining the formed material between 400 and 1050°C.
21. A catalyst containing 5-55 wt.-% of phosphoric acid, based on the total weight of the dried catalyst, supported on a catalyst support according to claim 1.